



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,117	07/30/2003	Flavio Cavalheiro		8331

7590 05/16/2005

Stephen E. Feldman, P.C.  
12 East 41st Street  
New York, NY 10017

EXAMINER

SPISICH, MARK

ART UNIT	PAPER NUMBER
----------	--------------

1744

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/630,117	<b>Applicant(s)</b> CAVALHEIRO, FLAVIO	
	<b>Examiner</b> Mark Spisich	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 22 March 2005. These drawings are approved, at least insofar as they overcome the drawing objections of the prior office action.
2. The drawings are objected to because they do not clearly show the relationship (claimed in claims 17 and 27) between the pawl and the collar. Showing a section of the collar in, for example, figure 9 (which shows the pawl) so as to illustrate the subject matter of the noted claims (which recites the projections of the pawl inside the collar and a the base being outside the collar) would greatly help in the understanding of the claimed invention. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

Art Unit: 1744

examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 28 is objected to because of the following informalities: it ends with a comma instead of a period. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 15-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement and/or the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The written description and the drawings of the present application raise significant questions as to how one of ordinary skill would be able to make or use the claimed invention. The drawings are particularly poor with regard to illustrating the claimed invention. It is not clear, when reading the specification and looking at the figures, what is meant by lines 10-12 of claim 15. If the pawl is attached to the collar, then how are the fibers pulled taught when the collar rotates in a first direction and the **pawl rotates in a second direction**? This is recited in the final three lines of claims 15, 26 and 27. The portions of the specification that relate to the collar and pawl (eg,

page 5, lines 18-25 and page 13, lines 1-14) do not help in clarifying this confusion.

The deficiencies of the written specification and drawings in the present application are more than merely minor problems and they pertain to the overall understanding of the component parts and the mode of operation of the present (claimed) invention. All the alleged novel elements of the present invention are very poorly illustrated in the drawings.

6. Claims 15-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The “whereby” clause at the end of claim 15 (lines 10-12) is very confusing and would seem to be incorrect. Up until the phrase “..in a first direction around the upper spline” (claim 15, lines 10-11) does not appear to be a problem. The problem is with the phrase “and the pawl rotates in a second direction, opposite to the first direction, around the upper spline”. The pawl is secured to the collar and thus one would assume that the pawl would rotate along with the collar about the pole (handle). The only portion of the written specification that uses any such language is on page 5 (lines 18-25) and this uses the reference to two directions of movement of the collar and not the pawl. Applicant should review the claims for any additional informalities.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1744

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 15 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Facca et al (USP 6,212,728). The patent to Facca discloses a twist mop (1) comprising a pole (3), fibers (73), a movable collar (41), an upper spline (11) and a pawl (57) connected to the collar which is biased toward the spline when the collar is located adjacent thereto. It has been held that the functional "whereby" statement does not define any structure and accordingly can not serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

9. Claims 15,16 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Morad (USP 5,509,163). The patent to Morad discloses a twist mop (10) comprising a pole (12), fibers (52), movable collar (18), upper spline (64) and a pawl (20) received in a slot (67) in the collar (claim 16). See above for a statement regarding the "whereby" clause.

10. Claims 15,26 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Lesley et al (USPUB 2004/0128783). Lesley discloses a twist mop (10) comprising a pole (11), fibers (18) connected to the pole, collar (100) having a radial step (104) and a pawl (11), the pawl being flexible and removable from the collar. See above for a statement regarding the "whereby" clause.

Art Unit: 1744

11. Claims 15,26 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Laux et al (USP 6,732,396). The patent to Laux discloses a twist mop (10) comprising a pole (12), spline (22), movable collar (42) and a pawl (60) connected to the collar and shaped to flex toward the spline. See above for a statement regarding the "whereby" clause.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morad (USP 5,509,163). The patent to Morad discloses the invention substantially as claimed, including the pawl (20) having a base portion (65) outside the collar (18) which extends through a slot (67) in the collar and a projection (66) distal to the base portion, with the exception of plural projections. The provision of plural projections would be obvious to one of ordinary skill since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

14. Claims 18-21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morad (USP 5,509,163) in view of Lesley et al (USPUB 2004/0128783). The patent to Morad discloses the invention substantially as claimed with the exception of the collar including lower slots for retaining the mop fibers. Lesley discloses a wringing collar (20)

Art Unit: 1744

for a twist mop which includes a plurality of fiber retaining slots (216) at and end thereof. It would have been obvious to one of ordinary skill to have modified the device of Morad as such as it is shown to be an art-recognized equivalent means for retaining mop fibers to a wringing collar. As claim 21 does not define a space between the upper and lower splines, upper and lower portions of the spline (64) would read on them as defined in claim 21.

***Comment Re Claims 22-25***

15. Claims 22-25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1<sup>st</sup> and 2nd paragraphs, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. This would require the removal of the last three lines of claim 15.

16. The following claim drafted by the examiner and considered to distinguish patentably over the art of record in this application, is presented to applicant for consideration:

Claim 29. (new) A twist mop comprising:

- a) an elongated pole;
- b) fibers connected to an end of the pole;
- c) a movable collar connected to both the fibers and the pole, said collar being adapted to move both along and about the longitudinal axis of the pole, said collar including a slot;
- d) an upper spline connected to the pole and adapted to interact with the collar;



e) a pawl connected to the collar and adapted to engage the spline, said pawl comprising an elongated member having a plurality of projections extending from a side thereof, said pawl further including a neck disposed at an end of the elongated member distal to the projections and extending therefrom in a direction opposite that of the projections, the end of the neck spaced from the elongated member including a base, said neck having a length substantially equal to the wall thickness of the collar and extending through the slot in the collar wherein the elongated member and projections are located in the interior of the collar and the base of the pawl is located outside of the collar, the size of the pawl base being larger than the slot in the collar to prevent the pawl from passing through the slot.

### ***Response to Arguments***

17. Applicant's arguments filed 22 March 2005 have been fully considered but they are not persuasive. The specification is such that the mere deletion of claims does not necessarily obviate the 112-1<sup>st</sup> paragraph rejection. As stated herein, there last three lines of claims 15,26 and 27 recite a limitation that is confusing and would seem to be incorrect. The part of the present invention that seems to be most clearly disclosed would be the structure of the pawl (fig 9) and its relationship to the collar. **Note the above claim which has been drafted along these lines.** The examiner requests that applicant amend figure 9 to show a section of the collar (with the middle slot) to show the portions of the pawl respectively inside and outside the collar. Any pawl member is

Art Unit: 1744

disposed around a splined pole would have to be at least to some degree biased inwardly or it wouldn't act as a pawl.

### ***Conclusion***

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

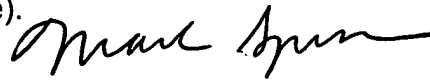
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Spisich whose telephone number is (571) 272-1278. The examiner can normally be reached on M-Th (5:30-3:00), Alternate Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Spisich  
Primary Examiner  
Art Unit 1744

MS